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ABSTRACT

Behind the Veil: The Effect of Banning the Islamic Veil in Schools*

Immigration from Muslim countries is a source of tensions in many Western countries. Several countries have adopted regulations restricting religious expression and emphasizing the neutrality of the public sphere. We explore the effect of the most emblematic of these regulations: the prohibition of Islamic veils in French schools. In September 1994, a circular from the French Ministry of Education asked teachers and principals to ban Islamic veils in public schools. In March 2004, the parliament took one-step further and enshrined prohibition in law. This paper provides evidence that the 1994 circular contributed to improving the educational outcomes of female students with a Muslim background and to reducing educational inequalities between Muslim and non-Muslim students. We also provide evidence suggesting that the 2004 law has not generated any further improvements.

JEL Classification: I21, J15

Keywords: Islamic veil, high-school graduation

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1 Introduction

Rising immigration from Africa and Middle East is fueling extreme political tensions in many Western countries, particularly in Europe, with the rise of far-right political groups, hostile to immigrants and their descendants. Immigration from Muslim countries is a source of particular tension, as many Westerners perceive Islam and Muslims as a threat to western values (see, e.g. [Cesari, 2013], [Ciftci, 2012], [Sniderman et al., 2004]).

Driven by their public opinion, Western countries have implemented policies that are less and less tolerant towards minorities and foreign cultures. Several governments have already adopted regulations restricting the wearing of veils by Muslim women, particularly the wearing of veils covering the entire face.[1] These anti-veil policies are often presented as a way to protect society in general, and women with Muslim background in particular, against the influence of radical religious groups. In practice, we still know very little about their actual effects on the integration of populations with Muslim background into their host societies. One of the main objectives of this paper is to shed light on this issue by analyzing one of the most well-known anti-veil policies: the ban of hijab, niqab, and burka (hereafter, Islamic veil) in French schools, implemented in two steps, in 1994 and 2004. Our research strategy consists in comparing the educational outcomes of students with Muslim and non-Muslim background across cohorts who reached puberty (and the wearing veil age) either just before or just after the different stages of the prohibition.

Islamic veils have been a subject of controversy in France for nearly thirty years. Despite fierce debates, the question remains open as to whether banning the veil at school is a mark of intolerance that cuts Muslim female students from regular schooling, or whether it is instead a policy that frees them from religious constraints and promotes their school integration. In 1989, shortly after the first-ever exclusions of veiled students happened, the highest administrative court of the country (the *Conseil d'Etat*) issued a tolerant statement that went against these exclusions. Solicited by the socialist government then in place, the *Conseil d'Etat* indicated that a general ban on Islamic veils would be a violation of students' freedom of conscience. According to the 1989 statement of the *Conseil d'Etat*, the wearing

[1] Several European countries have banned full-face veils in public spaces, including France (in 2010), Belgium (2011), Bulgaria (2016), Austria (2017) or Denmark (2018). In the Netherlands, burqas and niqabs are prohibited in schools, hospitals, and public transports since 2012. In Norway, they are prohibited in schools and universities since 2017. Local bans have also been issued in Spain and Italy. In Germany, several regions have banned the wearing of Islamic veils by female teachers.

of Islamic veils is fully compatible with French law, as long as it does not disrupt teaching activities and it is not used to proselytize. The statement ended asking school team to judge the existence of these problems on a case-by-case basis.

A few years later, after the return of the right to power, a first hardening of the doctrine took place. In 1994, in a context of growing concern over religious fundamentalism, the new Minister of Education, François Bayrou, issued a circular in which he officially asked public schools to ban "ostentatious" religious symbols at school, on the grounds that they are by themselves instruments of proselytizing which impede the normal running of teaching activities. Also, two senior mediators (both with Muslim background) were appointed by the minister to help schools to implement the circular and resolve conflicts.

The 1994 circular expressly encourages principals and teachers to oppose the wearing of Islamic veils by all legal means, and in particular by invoking the specific problems raised in the conduct of courses (such as absenteeism in certain sports courses or students' endangering in some technology courses). However, ministerial circulars do not have the force of law and the decisions that they inspire can always be challenged by citizens before the courts. Ten years later, in 2004, after a long debate, a new law circumvented this issue by prohibiting definitely the veil at school.[2]

To identify the effect of the 1994 circular (or of the 2004 law), we focus on women who were born in France and we compare the educational outcomes of those whose father's nationality at birth is from a predominantly Muslim country (hereafter, Muslim group) with those of whose father's nationality at birth is French (hereafter, non-Muslim group). The vast majority of women in the non-Muslim group are not directly concerned by the ban on the veil and can serve as a "control" group. The Muslim group, on the other hand, is directly targeted by the prohibition of the veil, even if it is hard to foresee ex-ante in which direction it is mainly affected. For students who wish to wear the veil at school, the prohibition may have a negative effect on schooling, since it may lead them to opt for distance learning or to drop out from education. In contrast, for students who do not wish to wear the veil, but live in a pro-veil environment, the prohibition may have an opposite effect, as it may relieve them from having to wear at school a symbol that they do not want to wear.

[2] To be specific, the law does not simply forbid the wearing of Islamic veils, but the wearing of any visible sign of religious affiliation. In 2004-2005, however out of 639 religious signs recorded in French schools, only 2% (i.e., 13) were not Islamic veils [Ministère de l'éducation nationale de l'enseignement supérieur et de la recherche, 2005].

With respect to the 1994 circular, data from the Labor Force Surveys (LFS) suggests that the second effect dominates by far. When we compare women from the Muslim group with those from the non-Muslim group, data reveal a marked increase in the proportion of high school graduates in the Muslim group for cohorts born in 1981 and after, namely for cohorts who reached puberty (and the age of wearing the veil) just after the ban. When we compare men from the Muslim group with those of the non-Muslim group, there is no similar increase in the proportion of high school graduates in the Muslim group for cohorts born in 1981 and after, consistent with the assumption that the increase observed for women is driven by a policy targeting female students.

Concerning the 2004 law, the pivotal cohorts are no longer those born in the early 1980s, but those born ten years later, in the early 1990s. They are the first who reached puberty after the prohibition of the veil is enshrined in law. The data show a further increase in the proportion of high school graduates among women from the Muslim group born in the early 1990s (after 1991), but a similar increase is seen in the non-Muslim group, which casts doubt on the role played by the 2004 law.

As it happens, the cohorts born after 1991 are the first who benefited from the reform of the high school vocational degree, which started to be implemented in 2008 and 2009 in France. From that date on, this degree is no longer prepared in four years but in three years. The reform was followed by almost a doubling of the number of students obtaining a high school vocational diploma in each cohort [Thomas, 2019]. The overall improvement in graduation rates observed for cohorts born after 1990 likely reflects the effect of this reform rather than the effect of the law. The law was passed several years after the ministerial circular asked schools to ban Islamic veils and our results suggest that, in itself, it did not generate any further improvement in the educational outcomes of women in the Muslim group.

To our knowledge, our paper develops one of the very first economic analysis of the policies restricting the wearing of Islamic veils in French school, and more particularly of the 1994 ministerial circular.[3] Generally speaking, our paper contributes to the long-standing literature on the determinants of educational attainment, and more specifically to the branch of this literature emphasizing the role of social pressure and the importance given by adolescents to the perception that others have about them (see e.g. Coleman [1961]; Akerlof

[3]See, however, in the political sciences literature, the recent work by Abdelgadir and Fouka [2019], which takes a different approach since they focus on the 2004 law alone and on the comparison of cohorts who reach adulthood (rather than puberty) before and after 2004.

and Kranton [2002]; Austen-Smith and Fryer Jr [2005]; Bursztyn and Jensen [2015]; Bursztyn et al. [2018]). Specifically, our findings are consistent with a model where a significant fraction of female students with a Muslim background do not want to be perceived by their classmates (or teachers) as adhering to Muslim values, but live in social environments which impose costs to those who do not "act" Muslim whenever possible. Before the ban, attending school forces these students to experience social adversity, either at school (if they choose to wear the veil) or at home (if they refuse to wear the veil), with the possible consequence of their disengagement from school. After the ban, attending school without wearing the veil is no longer perceived as a problematic choice at home, and it becomes possible to attend school without experiencing social reprobation, resulting in lower dropout probability.

Our research also contributes to the economic literature on the integration of children with a foreign cultural background and, more specifically, on the integration of children with a Muslim background into non-Muslim western societies. With the recent record influx of Muslim migrants fleeing poverty and conflicts in Africa or the Middle East, the question of the integration of these families and their children is creating strong political tensions in non-Muslim host countries, especially in Europe. The economic literature has long documented that children with a foreign cultural background often experience strong difficulties at school and often drop out very early from school (see, e.g., Schnepf [2007]; Algan et al. [2010]; Dustmann et al. [2012]). The literature has also long emphasized that these difficulties reflect that children with foreign background often live in families that are low-income and that have limited proficiency in the language of the host country, even though it remains to understand why the role of these family inputs vary greatly across children's countries of origin or host countries [OECD, 2015]. In this context, our paper highlights the key role played by a different mechanism, namely the difficulties faced by adolescents with a foreign cultural background in forming their own identity. These difficulties appear to be especially important for children with a Muslim background living in a non-Muslim western country, since the expression of their commitment to the Muslim culture can be interpreted as a commitment to a violent, anti-Western ideology [Cesari, 2013]. Eventually, our research helps to understand why - in a country like France - school problems are generally much more important for students whose parents come from a Muslim country than for other second-generation students (Brinbaum and Kieffer [2009] and Brinbaum et al. [2010]). It also helps to understand why these school problems have decreased more rapidly for female than for male students over the generations

born in France between the early 1970s and the early 1990s, as documented in this paper.

The remainder of the paper is organized as follows: Section 2 describes the institutional and historical context while Section 3 describes available data and variables. Section 4 presents our conceptual framework and provides some basic evidence about the effect of the anti-veiling policies adopted in French schools between 1994 and 2004. Sections 5 and 6 develop our graphical and regression analysis, and Section 7 concludes.

2 Historical and institutional context

In September 1989, three Muslim girls were expelled from a middle school of the city of Creil (70 km north of Paris) on the grounds of refusing to remove their Islamic headscarves during the school day. In a letter to parents, the school principal explained that, according to him, Islamic headscarves represent an "excessive externalization" of religious affiliation, incompatible with the neutrality that must prevail in public schools.[4] After this event, other veil-related disputes broke out in the following weeks, most notably in the cities of Marseille and Avignon. These events feed a controversy between supporters and opponents of the appropriateness of Muslim girls wearing veils at schools.

The Conseil d'Etat statement

In an effort of appeasement, the (socialist) Minister of Education at that time, Lionel Jospin, seized the *Conseil d'Etat*, which is, in French law, the final arbiter of conflicts between citizens and public institutions. At the end of 1989, the *Conseil d'Etat* issued a statement against a general ban of Islamic veils at schools. According to the *Conseil*, such a prohibition would go against students' freedom of conscience and their right to express their religious beliefs. The *Conseil* stated that banning veils at school was only possible on a case-by-case basis and under particular circumstances, when wearing a veil threatens the smooth running of courses (for example, a student refusing to take off her veil during swimming lessons could be expelled). In the same year, the Minister published a circular in which he rephrased the *Conseil's* statement, by calling educational teams to judge case by case the problems raised by the wearing of veils in their schools.

[4]Supported by Jacques Chirac's party (RPR, right-wing), this school principal will be elected member of the parliament in the following general elections, in 1993 (and reelected in 1997).

The 1994 Circular

The 1989 statement of the *Conseil d'Etat* did not avoid the proliferation of local disputes in the early 1990s. In a context of rising religious fundamentalism, many teachers and principals started to complain of being left without clear instructions against what they perceived as an offense against the neutrality of public schools. In 1994, one year after the return of the right to power, a group of newly elected MPs (among which the former Creil principal) began to lobby for veil prohibition in schools [Pelletier, 2005]. In September 1994, the new Minister of Education, François Bayrou, issued a circular where he proposed a new interpretation of the laws regulating French secularism at school, but in a particularly restrictive sense. The text of this circular introduced a distinction between discreet religious signs and ostentatious signs, asking school principals to ban the latter. To be specific, it is written: "It is not possible to accept at school the presence of signs so ostentatious that their meaning is precisely to separate certain pupils from the rules of coexistence at school. These signs are, in themselves, elements of proselytism, all the more so when they involve challenging certain courses or disciplines, whether they endanger pupils or cause disruption in the school's life. I, therefore, ask you to propose (...) the prohibition of these ostentatious signs, even though the presence of more discreet signs, showing only the attachment to a personal conviction, cannot be subject to the same reservations, as stated by the *Conseil d'Etat* (...)". The circular ends by proposing a model article to be included in schools' internal rules,[5] in which it is stipulated that "ostentatious signs, which in themselves constitute elements of proselytism or discrimination, are prohibited". Bayrou also appointed two senior mediators (Rachida Dati and Hanina Cherifi, both with a Muslim background) to help schools to implement the circular and resolve conflicts that might arise by its implementation.

In the French context, a circular is a document that sets out the state of the law for civil servants, so as to promote the most uniform application of the law across the country. A circular therefore does not enact new norms, but proposes an interpretation of the existing ones. This interpretation functions as a working tool for public agents (in our case, principals and teachers) and as a source of information for users (in our case, students and their families).

By influencing agents' practices and users' representations, the impact of a circular can be very important, even if the decisions that it inspires can always be challenged before a

[5]The full text of the circular is provided in Appendix A.

court.[6] One of the objectives of our research will be precisely to evaluate the impact of the 1994 circular.

The 2004 Law

The 1994 circular likely reduced strongly the number of girls wearing a veil at school,[7] but litigations remained to be judged by teachers and principals themselves, on a case-by-case basis, in often-difficult local contexts. Teachers and principals wishing to implement the 1994 circular were in the front line, as it was up to them to convince students (and their families) to give up wearing the veil. Moreover, when the dialogue with students failed, and exclusions had to be decided, teachers and principals could not be certain that these exclusion decisions would not be ultimately cancelled by the *Conseil d'Etat*.

In this context, the French President Jacques Chirac set up a national commission to help to define a better implementation of the principle of secularism in French society. During the public hearings organized by this commission, almost all teachers and principals auditioned declared themselves in favor of a new law that would clearly affirm the illegality of ostentatious religious symbols and would relieve educational teams from having to judge on a case-by-case basis the legality of these symbols.[8] In March 2004, a new law about secularism in French society was approved by the vast majority of the parliament, the most emblematic article of which being the prohibition of ostentatious religious symbols in schools.

[6] In the year that followed the 1994 circular, only 139 students refused to remove their veil and were excluded. According to reports to the Senate and to the Ministry of Education, about 39% of these exclusion decisions were overturned before a court (see Rapport d'Information au Sénat [2004] or Ministère de l'éducation nationale de l'enseignement supérieur et de la recherche [2005]).

[7] In 2003, in an interview at one of the main French weekly magazine (the Nouvel Observateur), one of the mediator appointed by the Ministry of Education, Hanina Cherifi, said that during the academic year 1994-1995, "...we had 3000 disputes for which an intervention was necessary. In 2002, only about 150". Also, according to the 2005 report to the Ministry of Education [Ministère de l'éducation nationale de l'enseignement supérieur et de la recherche, 2005], there were only 47 exclusions of veiled students in the year that followed the 2004 law, against 139 exclusions in the year that followed the 1994 circular. This is consistent with the assumption that the number of potential conflicts between schools and families declined strongly across the 1994-2004 period.

[8] The commission comprised 20 members and conducted about 140 hearings. The commission made a report to the president with proposals about how the principle of secularism should be implemented in French society. One of the main proposals was to ban the Islamic veil in schools. See [Commission de réflexion sur l'application du principe de laïcité dans la république, 2003].

The educational system and the 2008-2009 high school reform

Between 1989 and 2004, the French doctrine about the presence of Islamic veils in schools moved from tolerance to total prohibition. In this paper, our main ambition is to assess the extent to which this change affected the school trajectories of female students from Muslim families and their ability to complete secondary education.

In France, elementary education lasts five years (from age 6 to 11), middle school lasts four years (from age 11 to 15), and high school lasts three years. Given that the decision of wearing a veil is usually taken at puberty (i.e., at about age 13), it is generally during the middle school years that the conflict between veil-wearing and school attendance becomes relevant. Specifically, according to a report to the government on the application of the 2004 law,[9] there were about 640 veiled students in 2004-2005, a little less than 53% in upper secondary education (grade 10 to 12), a little less than 47% in lower secondary education (grade 6 to 9), and less than 1% in primary schools. These numbers are consistent with the assumption that there were a little more than 100 veiled students per birth cohort and that they wore the veil mostly from grade 7 (age 12-13) to grade 12 (age 17-18).

Schooling is compulsory until the age of 16, but many students begin to disengage from school earlier, before the end of middle school, especially in deprived neighborhoods. According to a recent report of the Ministry of Education, among families in the bottom quartile of the income distribution, more than 7% of middle school students miss more than four half days of school per month without justification [Cristofoli, 2019].

After middle school, students can continue in high school so as to prepare for the *baccalaureat*, i.e., the high school diploma which marks the end of secondary education and opens the possibility of continuing in higher education. Since 1987, French high schools offer three possible tracks: the general education track, the technological track, and the vocational track, each leading to a particular type of high school diploma.

The general education and technological high school diploma require three years of preparation (from 10th to 12th grade). Until 2007, the vocational high school diploma required four years of preparation. From 2008, this same diploma requires only three years of preparation (firstly for 1/3 of the different possible occupational tracks, then in a generalized way in 2009). By reducing the length of the program, this reform induced a rise in the propor-

[9] See Ministère de l'éducation nationale de l'enseignement supérieur et de la recherche [2005].

tion of students who continue in vocational high school and, eventually, a rise in the overall proportion who obtain a high school diploma.

The first cohort to be fully impacted by the reform is the cohort of students born in 1992, since they entered into high school in 2008 or 2009 (depending on whether they had repeated a grade or not, in middle school or primary school).[10] Administrative data from the Ministry of Education confirms that the proportion of vocational high school graduates stays a little above 12% for cohorts born in the 1980s, but then increases to over 20% for the cohort born in the mid-1990s (see Thomas [2019]). Hence, the first cohorts who benefited from the vocational high school reform were born at the beginning of the 1990s, but these cohorts are also the first who had not yet reached puberty when the 2004 law was issued. To put it differently, the cohorts who were the first to be impacted by the law are also the first who benefited from the reduced cost of vocational high school graduation (as well as from the introduction of catch-up exams for final-year vocational high-school students). In this context, the effect of the 2004 law will be identified only under the maintained assumption that the high school reform had the same impact on students in the Muslim and non-Muslim groups.[11]

3 Data and sample

We use data from the Labor Force Surveys (hereafter LFS) conducted by the French Statistical Institute between 2005 and 2017. They provide us with information on respondents' gender, education, and date and place of birth for a large representative sample of individuals aged 15 or more. The LFS is a rotating panel of housing units where one-sixth of the units are replaced each quarter. Each housing unit remains in the survey for six consecutive quarters, but, in the following, we keep only the observations that correspond to the first quarter.

We have no direct information on respondents' religious affiliation, but we have informa-

[10] Students who were born in 1991 and entered into vocational high school in 2006 or 2007 may also have been impacted by the introduction of catch-up exams for final-year vocational high school students in 2009. The introduction of these catch-up exams coincides with a significant rise in pass the rates of vocational high school diploma, especially between 2009 and 2011 (see Thomas [2019]).

[11] According to figures provided in Brinbaum et al. [2010], the proportion of female students who opt for vocational education at the end of middle school is about the same in the Muslim and the non-Muslim group. Then, there is no strong reason to believe that the reform had a stronger effect on female students in the Muslim group. By contrast, the proportion of male students who opt for vocational education appear to be stronger among students in the Muslim group, so that it is likely that the reform had a stronger impact on these male students. In this scenario, the comparison between changes in inequalities between female students with Muslim and non-Muslim background and changes in inequalities between male students with Muslim and non-Muslim background may provide us with a downward biased of the 2004 law effect.

tion on the nationality at birth of their parents. Specifically, we know for each respondent whether her father's nationality at birth is French or whether it is from either (a) a Maghreb country (i.e., Algeria, Tunisia or Morocco), (b) a Middle East country (which, in France, corresponds essentially to Turkey), (c) a non-Maghreb African country, (d) a country from South-Asia (i.e., Laos, Vietnam or Cambodia), (e) a European country, or (f) a country from the rest of the world.

In the French context, the first two groups include a vast majority of Muslims, whereas the third group is more heterogeneous and include a tighter majority of Muslims.[12] In the remainder of the paper, we focus on LFS respondents who were born in France (i.e., who likely went to school in France), and define as "Muslim" those whose fathers' nationality at birth is from either a Maghreb country, a Middle-East country, or a non-Maghreb African country. Conversely, "non-Muslim" are those whose father's nationality at birth is French. Our Muslim group represents about 7% of LFS respondents born between 1970 and 1994. Within this Muslim group, there is a vast majority of individuals whose father's nationality at birth is from a Maghreb country (about 60% for recent cohorts and 75% for older ones), while a smaller fraction of individuals had a father whose nationality at birth was from a Middle East (10% for older cohorts and 15% for recent ones) or a non-Maghreb African country (about 15% for older cohorts and 25% for recent ones). As discussed below, we checked that our results are quasi unchanged when we drop non-Maghreb African countries from the "Muslim" group.

Generally speaking, the purpose of our paper is to compare the evolution of the educational attainment of individuals in the Muslim group with the evolution of the educational attainment of individuals in the non-Muslim group. Specifically, we explore whether the difference in high school graduation rates between these two groups changed across cohorts born between the mid-1970s (the last to be unaffected by the 1994 circular) and the early

[12] According to a survey conducted in 2008-2009 by the French statistical office (INSEE) and the French institute for demographic studies (INED), on a sample representative of the population aged 15-50 living in France, 80% of immigrants from Maghreb or Turkey are Muslim. Moreover, more than 70% of individuals who were born from Maghrebi or Turkish immigrants are Muslim (see Simon and Tiberj [2010, 2016]). For non-Maghreb Africans, the same survey distinguishes between those from "Sahelian Africa" (Senegal, Mali, Mauritania, Guinea, Chad,...) and those from "Central Africa" (Congo, DRC, Cameroon, Ivory Coast...), each of the two sub-groups representing about half of the non-Maghrebi African. The proportions of Muslims is about as high for the group of Sahelian Africans as for Maghrebi. By contrast, Muslims represents less than 10% of immigrants from Central Africa. Census data confirms that about half of the non-Maghreb Africans living in France are from countries where Islam is the main religion, while the other half come from countries where Muslims are in the minority.

1990s (the first to reach puberty after the 2004 law). In the French context, the vast majority of individuals finish secondary education before age 21 and, consequently, our working samples will be restricted to individuals aged 21 or more. We checked that our results are unchanged when samples are restricted to individuals aged 22 or more. Some descriptive statistics for our working sample are provided in Appendix Table C3 and C4.

4 Conceptual framework and basic evidence

The 1994 circular and the 2004 law were preceded by very lively debates in the media and parliament. The report of the 2003 commission for the application of the principle of secularism in France summarizes the main objections raised by opponents of banning the veil, as well as the advantages put forward by people in favor of the ban. Among the objections raised was the idea that a law prohibiting the veil would encourage school dropout among young Muslim female students who wish to live according to the rules of Islam. Among the arguments in favor of a new law was the idea that a "silent majority" of young female students with a Muslim background are under pressure at home or in their neighborhood and need to be protected against choices that are not theirs.[13]

Similar ideas are found in the article written in 1996 by one of the mediators appointed to help schools to implement the 1994 circular [Chérifi, 1996]. According to her, there are many reasons why some students may want to avoid wearing a veil in French school. In particular, the veil can increase the stigmatization of those who wear it. The mediator reports a teacher saying "As the veil is highly visible, we see the Muslim instead of seeing the student". Wearing a veil can also be interpreted as a commitment to the values of a more rigorous Islam, a disapproval of the fact that girls and boys are mixed in the same classes, and a reluctant attitude of participating in some sports activities. Some adolescents may want not to appear as committed to these values, even though their family and social environment want them to.

A simple model for Islamic veil prohibition

In Appendix B, we build on these ideas to develop a simple conceptual framework so as to make it as clear as possible how a ban on Islamic veils can affect female students with

[13] See Commission de réflexion sur l'application du principe de laïcité dans la république [2003]. With respect to the "silent majority" of moderate Muslims whose voices are quietened by a very small radicalized minority, see also Esposito and Mogahed [2007].

a Muslim background. In this model, female students have three basic choices when they reach puberty. They can either attend school and get involved in their studies while wearing the veil at school (EV), attend school and get involved in their studies without wearing the veil at school ($E\underline{V}$), or disengage from school (including by skipping classes), ($\underline{V}$). With respect to preferences, some students (hereafter, pro-veil students) have strong religious convictions and prefer to disengage from school rather than to get involved without wearing the veil. Some other students (hereafter, anti-veil students) do not want to be perceived as adhering to Muslim values by their classmates and prefer to disengage from school rather than to get involved while wearing the veil. Students choose the option that maximizes their utility, under the constraints imposed by their family and social environments. For the sake of simplicity, we assume that there are only two types of environments: 1) those imposing adolescents to wear a veil wherever possible, and 2) those not imposing any constraints. In this framework, it is not difficult to show that a ban on Islamic veils may affect negatively pro-veil students, but positively anti-veil students living in a pro-veil environment.

As for the first group of students (pro-veil), a ban on Islamic veils mechanically induces a decline in the utility derived from getting involved in their studies at adolescence and, consequently, may lead to an increase in drop out risks. These negative effects are potentially even stronger for students who reach puberty (and the age of wearing the veil) after the ban than for those who reach puberty before the ban. For example, if we focus on a ban issued in t_0, the effect on pro-veil students are likely more negative for those who were born after $t_0 - 13$ than for those who were born before $t_0 - 13$. Those born after $t_0 - 13$ reached the age of 13 after the ban, and have therefore all been encouraged to disengage from public education at this age, since it is also about the age of puberty and the age when one must begin to wear the veil. On the other hand, those born before $t_0 - 13$ face the ban only later (age 14 for those born in $t_0 - 14$, age 15 for those born in $t_0 - 15$, etc..) and are induced to disengage from public school only later, or not at all for those born before $t_0 - 18$ (they have all left secondary education in t_0). Overall, if there were only pro-veil students, we should observe a gradual decline in educational attainment across the cohorts born between $t_0 - 18$ and $t_0 - 13$, followed by a stability at the lowest level for subsequent cohorts. The magnitude of the pre $t_0 - 13$ decline should provide us with a measure of the proportion of pro-veil compliers in each cohort. This scenario is shown in Appendix Figure B6.

Concerning female students from the second group (anti-veil student living in a pro-veil

environment), a ban on Islamic veils in schools induces a rise in the utility derived from attending school at adolescence, which may lead to an increase in educational achievement. Here again, it is necessary to distinguish between those who reach the age of puberty before the ban and those who reach puberty after the ban. Assuming again that the ban is issued in t_0, anti-veil students born after $t_0 - 13$ reach the age of puberty (and the age of wearing the veil) after t_0 and are, therefore, induced to engage in school from age 13 on. On the other hand, those born before $t_0 - 13$ reach the age of 13 before the ban and are, therefore, all induced to disengage from education at this age. In this scenario, assuming that dropout risks depend mostly on the age at which students first disengage from school, we should observe a significant increase in the educational attainment of anti-veil students in pro-veil environment for cohorts born just after t_0-13. This scenario is shown in Appendix Figure B5.

In this very simple conceptual framework, the overall impact of the 1994 circular (or of the 2004 Law) on the schooling careers of female students in the Muslim group cannot be easily predicted, since it depends on the relative number of pro-veil and anti-veil adolescents in each cohort, which appears as the main unknowns of our problem.

Basic evidence: pre-prohibition vs post-prohibition cohorts

One simple way to shed light on this issue is to compare the educational outcomes of women in our Muslim and non-Muslim groups, before and after the prohibition of Islamic veils. Is there a specific improvement in the level of education of women in the Muslim group after the prohibition?

One first approach to these questions is to compare the probability of high school graduation for groups of cohorts born either in the early seventies (1970-1974), in the early eighties (1980-1984), or in the early nineties (1990-1994). By reasoning on groups of cohorts, our goal is to start with the most robust analysis possible. The oldest group of cohorts was aged 20 (or more) when the 1994 circular was issued and were unaffected by the anti-veil policies implemented in 1994 and 2004. In contrast, the youngest group of cohorts was directly impacted by these policies, since they entered primary school after 1994 and were still in middle school when the 2004 law was issued. Finally, the cohorts born in 1980-1984 were affected by the 1994 circular (they were still in middle school when the circular was issued), but not by the 2004 law (since they finished high school before).

Table 1 shows the proportion of high school graduates for the three groups of cohorts,

and separately for women and men in our Muslim and non-Muslim groups.[14] When we first focus on pre-prohibition cohorts 1970-1974, the educational gap between the Muslim and non-Muslim groups is very significant and very similar for women and men, namely about -12.4 percentage points for women (49.8% vs. 62.2%) and -11.7 percentage points for men (-41.8% vs 53.5%). Most strikingly, when we focus on post-prohibition cohorts (1990-1994), the gap between women in the Muslim and non-Muslim groups is only half the size of the gap in pre-prohibition cohorts (-6.5% vs. -12.4%); whereas the gap between men in the Muslim and non-Muslim groups remains virtually unchanged between post- and pre-prohibition cohorts (-11.9 vs -11.7). Hence, when we compare pre- and post-prohibition cohorts, we see a clear improvement in the relative level of education of women with a Muslim background, while the relative level of education of men with a Muslim background is unchanged.

When we further compare the pre- and post-prohibition cohorts with the intermediate cohorts 1980-1984, we observe that the improvement in the level of education of women in the Muslim group took place mostly between the pre-prohibition cohorts and the intermediate cohorts. On the other hand, only a small improvement occurred between the intermediate and post-prohibition cohorts. Specifically, the high school graduation gap between women in the Muslim and non-Muslim groups declines from -12.4 percentage points to -7.3 percentage points between pre-prohibition and intermediate cohorts (the 5 percentage points decline being statistically significant at the 5% level), and then declines only from -7.3 percentage points to -6.5 percentage points between the intermediate and post-prohibition cohorts (the 0.8 percentage point decline being statistically insignificant).

Overall, Table 1 is consistent with the assumption that the prohibition of Islamic veils in French schools induced an improvement in the level of education of women in the Muslim group, which was mainly driven by the 1994 circular. In the next section, we further test this assumption by comparing more closely the exact timing of prohibition policies and the evolution of educational outcomes across cohorts.

[14] As explained in the data section, we focus on LFS respondents who were born in France and who are at least 21 years of age at the time of the survey, that is, respondents who were educated in France and have completed secondary education. We checked that we obtain almost exactly the same results when we further restrict the sample on respondents who are at least 22 years of age at the time of the survey.

5 Graphical analysis

The previous analysis suggests that before the 1994 circular was issued, many adolescents in the Muslim group preferred to disengage from school rather than to wear the Islamic veil. The main effect of the circular seems to have been to help them to continue their studies by allowing them not to wear the veil at school. If this hypothesis is correct, however, we must see a significant rise in the level of education of women in the Muslim group for cohorts who reached puberty just after the 1994 circular, as suggested by Appendix Figure B6 in the theoretical appendix. Specifically, the rise in the level of education of women in the Muslim group documented in the previous section should not be smooth across cohorts, but discontinuous, with a jump for cohorts who reached puberty just after the 1994 circular.

Graphical analysis: the impact of the 1994 circular

To shed light on this issue, Figure 1A compares the evolution of the educational level of women in the Muslim and non-Muslim groups across cohorts born between 1976 and 1984, that is, born late enough to have all benefited from the new vocational high school diploma (as created in the late 1980s), but also early enough not to have been affected by the reform of this same vocational high school diploma in the late 2000s.

For women in the non-Muslim group, Figure 1A shows a high degree of stability in the proportion of high school graduates across cohorts, slightly above 70%. By contrast, for women in the Muslim group, Figure 1A suggests a marked increase just after the 1980 birth cohort: for cohorts born before, the proportion of graduates fluctuates below the 60% mark, around 57%, while for those born in 1981 and after, the proportion of graduates fluctuates well above the 60% mark, around 65%.

To take one step further, Figure 1B shows the estimated difference in high-school graduation probability between the Muslim and non-Muslim groups, taking as a reference the difference observed for the 1980 cohort.[15] The Figure confirms that the differentials observed for cohorts born before 1980 are all very close to the differential observed for cohort 1980, whereas the differentials observed for cohorts born after 1980 are all significantly larger than

[15]Estimates are obtained from regressing a dummy indicating high school graduation on a full set of interactions between a Muslim dummy and cohort dummies, and controlling for a full set of survey date fixed effects and department of birth fixed effect. We checked that our results are unchanged when we do not control for survey date and department of birth.

the differential observed for cohort 1980. These findings are consistent with the assumption that the 1994 circular played a key role in the improvement of the educational level of women in the Muslim group, as documented in the previous section.

Figures 2A and 2B replicate the same graphical analysis focusing not on women, but on men. These two figures do not reveal any break comparable to that identified in Figures 1A and 1B. The difference in the proportion of high school graduates across men in the Muslim and non-Muslim groups is about the same for the 1976 cohort, the 1980 cohort, and the 1984 cohort. This result is consistent with the assumption that the improvement in the educational level of women in the Muslim group born in the early 1980s is a consequence of the circular banning Islamic veils, since such a ban directly affects females, not males. Appendix Figures D7 and D8 show that this result still holds true when we drop individuals with a non-Maghreb African background from our Muslim group.

Overall, the 1994 circular appears to have encouraged a significant fraction of female students in the Muslim group to persevere at school. In our conceptual framework, this finding is suggestive that a large fraction of women from Muslim families born after 1980 did not wish to wear a veil at school, but was living in pro-veil environments. By helping them to go to school without having to wear a veil, the 1994 circular seems to have helped many to persevere at school, at least until the end of high school.

As discussed above, the 1994 circular may also have had a negative impact on the school trajectories of students in the Muslim group who prefer not to go to school rather than to go to school without the veil. The fact that we observe no significant decline in the difference in high school graduation rates between women in the Muslim and non-Muslim groups across cohorts born between 1976 and 1980 is suggestive that this pro-veil group only represents a very small share of the Muslim group. This last result is consistent with the fact that only a very small proportion of female students with a Muslim background actually wore the veil when the circular was issued. Specifically, based on the 2004 report to the Senate or the 2005 report to the Ministry of Education, we can estimate that only around 2000 adolescents wore a veil in secondary schools in September 1994.[16] This represents only about 1% to 1.5% of female adolescents from Muslim families in each birth cohort.[17] Furthermore, this pro-

[16]See Rapport d'Information au Sénat [2004] and Ministère de l'éducation nationale de l'enseignement supérieur et de la recherche [2005]

[17]Given that students who wear the veil on a given point in time belong to about six birth cohorts (from grade 7 to grade 12), a total of 2000 veiled students corresponds to about 350 veiled students per cohort.

portion of 1.5% likely represents an upper bound for the proportion of female students from Muslim families who may have been negatively affected by the 1994 circular, since not all veiled students ended up dropping out from school after the circular was issued. According to the 2005 report to the Ministry of Education, the vast majority of veiled students actually agreed to remove their veil after the circular was issued.[18]

Graphical analysis: the 2004 law

The 2004 law is the second and last step in the hardening of the French doctrine on the veil. It inscribes the prohibition of the very principle of the veil in the law. Following this vote, it is no longer necessary to demonstrate on a case-by-case basis that wearing a veil interferes with the smooth running of courses to expel a student.

If we take up our distinction between pro-veil students and anti-veil students living in a pro-veil environment, the vote of the law had potentially the same kind of (opposite) effects on these two groups of students, as the 1994 circular. In particular, the 2004 law is likely to have further increased the proportion of high school graduates among the anti-veil group. It should be kept in mind, however, that the law was passed long after the 1994 circular was issued, namely long after the Ministry of Education officially asked schools to ban Islamic veils. Hence, the 2004 law could only have an impact in cases where the circular was not enough to ban veils. Wherever the existence of the circular was sufficient to solve problems, the law itself could only have a marginal effect.

To shed light on this issue, Figure 3A focuses on the cohorts of women born in France between 1986 and 1994 and compares the evolution of the proportion of high school graduates among the Muslim and the non-Muslim groups. In this analysis, the pivotal cohorts are no longer those born in the early 1980s (as in the previous subsection), but those born ten years later, in the early 1990s.

Given that cohort size is about 800,000 and that the proportion of Muslim is about 7%, we can estimate that there were about 28,000 female students from Muslim families per birth cohort (i.e., 400,000x7%). Hence 350 veiled students per cohort mean that only about 1.2% of the population of female students from Muslim families wore the veil in each birth cohort before the circular was issued.

[18] Only 139 veiled students ended up being excluded in the year that followed the 1994 circular, that is only about 7% of veiled students. Ten years later, in 2004, about 630 students wore the veil when the law was issued and the proportion who ended up being excluded was about the same as in 1994 (about 7%). A survey conducted in 2004-2005 confirms that about 80% of veiled students agreed to remove their veil while about 11% opted for distance education [Ministère de l'éducation nationale de l'enseignement supérieur et de la recherche, 2005]

As far as the non-Muslim group is concerned, the proportion of high school graduates first increases slowly from about 71% for cohort 1986 to about 74% for cohort 1990, and then increases more rapidly up to about 78% for cohort 1994, consistent with the timing of the law, but also with the timing of the high school reform.[19] With respect to the Muslim group, the proportion of high school graduates follows a similar pattern: it first rises slowly from about 64% to about 67% between cohorts 1986 and 1990, before increasing up to about 72% for cohort 1994. The overall increase in the proportion of high school graduates between cohorts 1986 and 1990 is about the same for the two groups, consistent with the assumption that the law had no effect on the educational attainment of female students in the Muslim group. Figure 3B confirms that there is no clear shift in the estimated difference in high school graduation between the Muslim and non-Muslim group after cohort 1990 (and no negative trend in this difference before 1991).

To further explore the exact role of the law, Figures 4Aand 4B show the results of replicating Figures 3A and 3B using the sample of men. Results for men appear to be qualitatively similar to those obtained for women, with a smooth rise for the non-Muslim group and a more chaotic increase for the Muslim group. For both gender groups, the gap in high school graduation between the Muslim and non-Muslim groups is about the same for the cohort 1994 as for the cohort 1986. Overall, we get little evidence that the law had any specific net effect on the relative educational outcomes of female students in the Muslim group. Again, Appendix Figures D9 and D10 show that this finding still holds when we drop individuals with a non-Maghreb African background from our Muslim group.

It should again be emphasized that the 2004 law was passed several years after the 1994 circular was issued, namely several years after the Ministry of Education officially asked schools to ban Islamic veils. Then, it should not come as a surprise to find that the law, in itself, ended up having little effects on the educational careers of students in the Muslim group.

6 Regression analysis

The previous graphical analysis is suggestive that the 1994 circular was followed by a significant rise in the educational level of women in the Muslim group, but that the 2004 law did not lead to any further improvement. Also, our graphical analysis reveals no differen-

[19] As discussed above, the first cohorts affected by this reform entered high school in 2008 or 2009, which means that they were born in 1992 or 1993.

tial trends between Muslim and non-Muslim groups for cohorts that reached puberty in the years before the 1994 circular or in the years before the 2004 law. To further test the robustness and significance of these results (and explore heterogeneous effects across different subgroups) this section develops a more parsimonious regression model where we assume that the educational level of student i from birth cohort c (denoted $Y_{i,c}$) can be written,

$$Y_{i,c} = \alpha Muslim_i + \beta Muslim_i \times 1(c \geq c_0) + \theta_c + X_{i,c}\phi + \varepsilon_{i,c}, \tag{1}$$

where $Muslim_i$ is a dummy variable indicating that i is in the Muslim group while $1(c \geq c_0)$ represents a dummy indicating whether individual i year of birth c was after c_0. The threshold c_0 is set equal to either 1981 or 1991, depending on whether we focus on individuals who reached puberty before/after the $t_0 = 1994$ circular, or on individuals who reached puberty before/after the $t_0 = 2004$ law. The θ_c represent a full set of cohort fixed effects and $X_{i,c}$ a set of control variables including a full set of department of birth fixed effects and survey fixed effects.[20] In some specifications, we include an interaction between $Muslim_i$ and a cohort trend as an additional control or, alternately, an interaction between $Muslim_i$ and a first-order spline function of c with a knot at $c = c_0$. This last specification makes it possible to test whether there exists a negative (*pre-*c_0) trend in the difference in educational outcome across the Muslim and non-Muslim groups, which would be consistent with the assumption that some pro-veil students from the Muslim group were negatively affected by the ban (as discussed in the theoretical appendix). The main parameter of interest is β and the $\varepsilon_{i,c}$ variable represents the unobserved determinants of educational achievement. Identification relies on the assumption that the variation in average $\varepsilon_{i,c}$ across cohorts are the same for the Muslim and non-Muslim group. Standard errors are clustered at the department of birth × father's nationality at birth level, so as to account for potential correlation of residuals within groups of individuals with a similar background.

The three first columns of the panel A of Table 2 shows the regression results when we use the same female working sample as Figure 1A, and when we use high school graduation as dependent variable. The first column corresponds to the specification without interacted cohort trend, the second column corresponds to the specification with an interacted cohort trend (i.e., with $Muslim_i \times c$ as additional control), and the third column to the specification with an interacted cohort spline (i.e., with $Muslim_i \times c$ and $Muslim_i \times c \times 1(c \geq c_0)$

[20]We checked that estimated impacts remained the same when we drop department of birth fixed effects and/or survey date fixed effects from the set of control variables.

as additional controls), so as to account for potential change in the Muslim trend at the cut-off cohort. Consistent with our previous graphical analysis, the regression results show a significant increase in the proportion of high school graduates for women in the Muslim group who reached puberty just after 1994, namely just after the Ministry of Education officially asked schools to ban Islamic veils. The estimated effects vary from +8.1 percentage point to +9.6 percentage point depending on specification (which corresponds to a 13%-16% increase in high school graduation). Furthermore, estimated interacted trend are not significant at standard level in any specification, consistent with graphical evidence and with the assumption that the 1994 circular did not induce significant negative effects.

The three last columns of the panel A of Table 2 replicates this regression analysis using the same male working sample as Figure 2A. Consistent with our previous graphical analysis, the regression results show no significant variation in the proportion of high school graduate among Muslim background men who reached puberty after the 1994 circular (and not significant interacted trend either).

Panel B of Table 2 shows the same regression analysis when we focus on the same working samples as Figures 3A and 4A, namely the working samples of women and men born before and after $c_0 = 1991$. Consistent with our graphical analysis, the Table does not show any significant difference in the proportion of high school graduates between the Muslim and non-Muslim groups, regardless of whether we focus on women or men.

We also replicated our regression analysis separately on subgroups of individuals defined by their region of birth or by the occupational status of their father. Due to small subsample size, we were unable to detect significant variation in the estimated impact of the ban across subgroups.

7 Conclusion

In this paper, we first showed that the difference in high school graduation probability between French-born women with Muslim and non-Muslim background decreased significantly over the cohorts born between the early 1970s and the early 1990s, whereas the same differential remained stable for men. We further showed that the increase in the relative proportion of high school graduates among women with a Muslim background occurs mostly for cohorts who reached puberty after the 1994 ministerial circular, namely after the French Ministry of

Education officially asked public schools to ban ostentatious religious sign.

From a theoretical viewpoint, the prohibition of Islamic veils in schools can negatively affect female students who wish to wear the veil at school, but it can also affect positively those who do not wish to wear it, but live in families and social environments who expect them to wear the veil at school. Generally speaking, our findings are suggestive that the second group was much larger than the first one at the time the ban on wearing the veil was implemented. This finding is consistent with the fact that very few female students in the Muslim group actually wore an Islamic veil in French schools before the ban, limiting its potentially negative effects.

In Western countries, there is a growing tension between two fundamental principles: the principle of individual freedom (including freedom of religion) and the principle of the neutrality of the state and the public sphere (including the neutrality of public schools for example). There is no obvious way to resolve this tension and laws restricting the wearing of religious symbols in the public sphere vary greatly from country to country. In this context, French secularism (so-called laïcité) is often accused of going too far in the direction of the neutrality of the public sphere, to the detriment of the exercise of freedom of religion. Our findings call for a more nuanced view, since they suggest that the very implementation of more restrictive policies in French public schools ended up promoting the educational empowerment of some of the most disadvantaged groups of female students.

Eventually, in spite of strong political tensions, school integration of students with a Muslim background is not decreasing in France, it has even improved for female students, especially those who started secondary education after the prohibition of Islamic veils in schools. Further research is needed to know whether such restrictive policies would have the same effect in societies traditionally more open than the French one to the expression of religious and ethnic identities in the public sphere.

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Tables

Table 1: High school graduation probability, by gender and birth cohort

	Cohorts 1970-1974 (1)		Cohorts 1980-1984 (2)		Cohorts 1990-1994 (3)
Panel A: women					
Muslim (a)	0.498		0.636		0.680
	[0.020]		[0.015]		[0.020]
Non-Muslim (b)	0.622		0.709		0.746
	[0.004]		[0.004]		[0.006]
(a)-(b)	-0.124		-0.073		-0.065
	[0.020]		[0.015]		[0.021]
$[(a) - (b)]_t - [(a) - (b)]_{t-1}$		0.050**		0.008	
P-value		0.046		0.760	
Panel B: men					
Muslim (a)	0.418		0.498		0.555
	[0.020]		[0.015]		[0.021]
Non-Muslim (b)	0.535		0.607		0.674
	[0.004]		[0.004]		[0.006]
(a)-(b)	-0.117		-0.109		-0.119
	[0.021]		[0.015]		[0.022]
$[(a) - (b)]_t - [(a) - (b)]_{t-1}$		0.007		-0.01	
P-value		0.778		0.712	

Notes: This table shows the proportion of high school graduates among French-born individuals aged 21 or more, separately for women (panel A) and men (panel B). Column (1) displays results for individuals born between 1970 and 1974, column (2) displays results for individuals born between 1980 and 1984, and column (3) displays results for individuals born between 1990 and 1994. In each panel, row (a) refers to the Muslim group, row (b) to the non-Muslim group, and row (a)-(b) shows the difference between the Muslim and non-Muslim groups. The last two rows of each panel show the difference in (a)-(b) between two successive groups of birth cohorts and its corresponding p-value. Standard errors are in brackets. Source: INSEE, LFS 2005-2017.

Table 2: 1994 circular and 2004 law effects on high school graduation

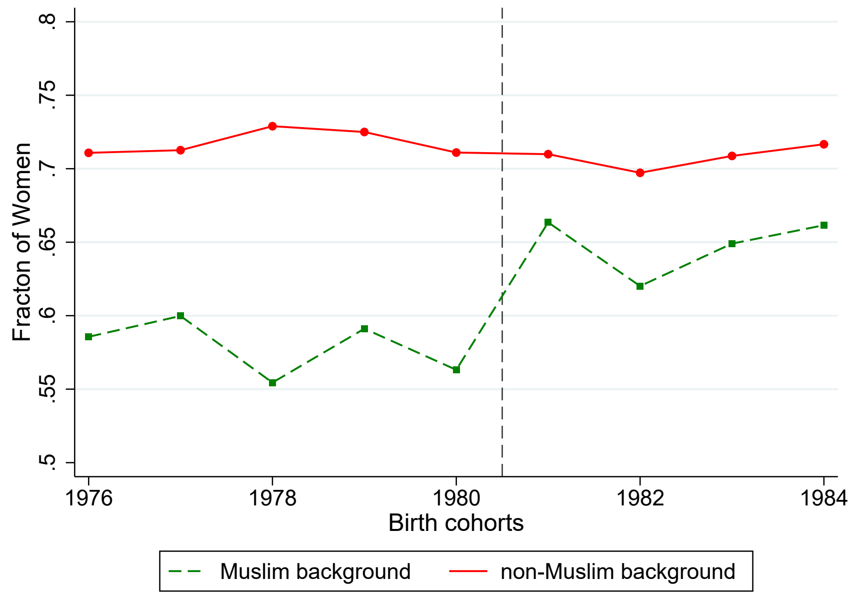
	Women			Men		
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: 1994 circular						
Muslim × $1\{\text{aged} \leq 13 \text{ at } t_0\}$	0.081***	0.096**	0.092*	0.029	0.007	-0.004
	(0.020)	(0.045)	(0.047)	(0.022)	(0.046)	(0.045)
Muslim × Cohort		-0.003	-0.006		0.005	0.001
		(0.009)	(0.011)		(0.008)	(0.012)
Dep. var. non-Muslim 1976-80	0.718	0.718	0.718	0.626	0.626	0.626
Dep. var. Muslim 1976-80	0.578	0.578	0.578	0.48	0.48	0.48
Trends	No	Yes	Yes	No	Yes	Yes
Trend post	No	No	Yes	No	No	Yes
R2	0.022	0.022	0.022	0.023	0.023	0.023
N	40481	40481	40481	38887	38887	38887
Panel B: 2004 law						
Muslim × $1\{\text{aged} \leq 13 \text{ at } t_0\}$	0.010	-0.016	-0.042	-0.013	0.075	0.041
	(0.026)	(0.046)	(0.059)	(0.031)	(0.058)	(0.069)
Muslim × Cohort		0.006	0.002		-0.020**	-0.025**
		(0.009)	(0.011)		(0.009)	(0.011)
Dep. var. non-Muslim 1986-90	0.716	0.716	0.716	0.633	0.633	0.633
Dep. var. Muslim 1986-90	0.646	0.646	0.646	0.537	0.537	0.537
Trends	No	Yes	Yes	No	Yes	Yes
Trend post	No	No	Yes	No	No	Yes
R2	0.031	0.031	0.031	0.028	0.028	0.028
N	22255	22255	22255	22277	22277	22277

Notes: This Table refers to our working samples of French-born individuals aged 21 or more who were born either between 1976 and 1984 (panel A) or between 1986 and 1994 (panel B). Columns (1) to (3) refer to the subsample of women and columns (4) to (6) refer to the subsample of men. This Table shows the results of regressing a high school graduation dummy on a Muslim dummy, a set of cohort dummies as well as on the interaction between a Muslim dummy and a post variable indicating that the respondent reached the age of 13 before the date t_0 of the ban (with $t_0 = 1994$ on panel A and $t_0 = 2004$ in panel B). All regressions control for a full set of individual's department of birth fixed effects and a full set of survey fixed effects. In columns (2) and (5) we also control for an interaction between a Muslim dummy and a cohort trend, whereas in columns (3) and (6) we control for an interaction between a Muslim dummy and cohort spline with knot at $t_0 - 13$. The Table reports the estimated coefficient of the interaction between the Muslim dummy and the post dummy, as well as the estimated effect of the interaction between the Muslim dummy and the cohort trend variable. Observations are weighted by their sample probability weight. Standard errors, reported in parenthesis, are clustered at the individual's department of birth × father's nationality at birth level. Significance levels: $^{***} < 0.01$, $^{**} < 0.05$, $^{*} < 0.1$. Source: INSEE, LFS 2005-2017.

Figures

Figure 1: High school graduation rates for women reaching puberty around the 1994 circular's issue

(A) High school graduation rate of Muslim and non-Muslim.



(B) Estimated differences between Muslim and non-Muslim.



Notes: The top figure displays the fraction of French-born women, aged 21 or more, who graduated from high school, for cohorts born between 1976 and 1984. The solid (dashed) line refers to the Muslim (non-Muslim) group. The bottom figure displays the estimated difference in high school graduation probability between Muslim and non-Muslim groups obtained from regressing a high school graduation dummy on a full set of interactions between the Muslim dummy and cohort dummies, and controlling for department of birth and survey date fixed effects. Cohorts to the left of the vertical dashed line reached puberty before the issue of the 1994 circular. Source: INSEE, LFS 2005-2017.

Figure 2: High school graduation rates for men reaching puberty around the 1994 circular's issue

(A) High school graduation rate of Muslim and non-Muslim.



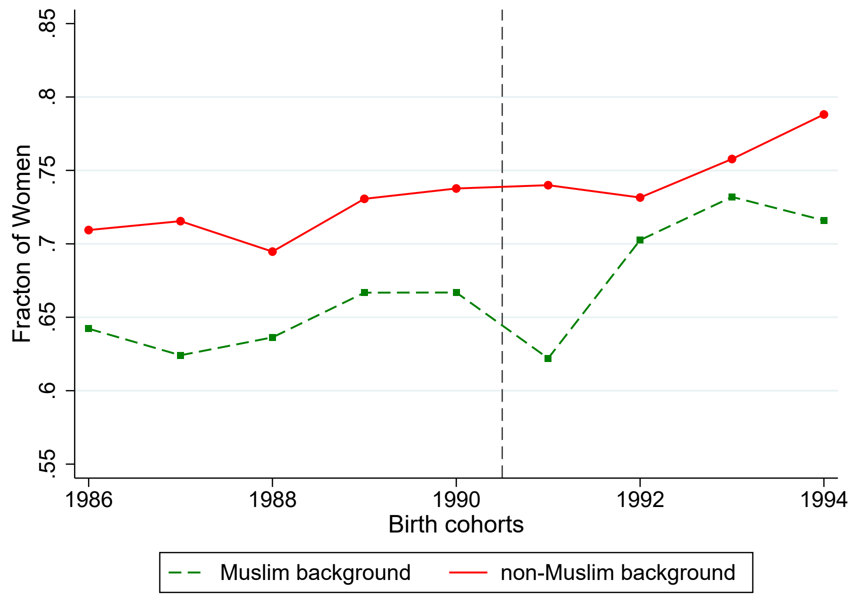
(B) Estimated differences between Muslim and non-Muslim.



Notes: The top figure displays the fraction of French-born men, aged 21 or more, who graduated from high school, for cohorts born between 1976 and 1984. The solid (dashed) line refers to the Muslim (non-Muslim) group. The bottom figure displays the estimated difference in high school graduation probability between Muslim and non-Muslim groups obtained from regressing a high school graduation dummy on a full set of interactions between the Muslim dummy and cohort dummies, and controlling for department of birth and survey date fixed effects. Cohorts to the left of the vertical dashed line reached puberty before the issue of the 1994 circular. Source: INSEE, LFS 2005-2017.

Figure 3: High school graduation rates for women reaching puberty around the 2004 law issue

(A) High school graduation rate of Muslim and non-Muslim.



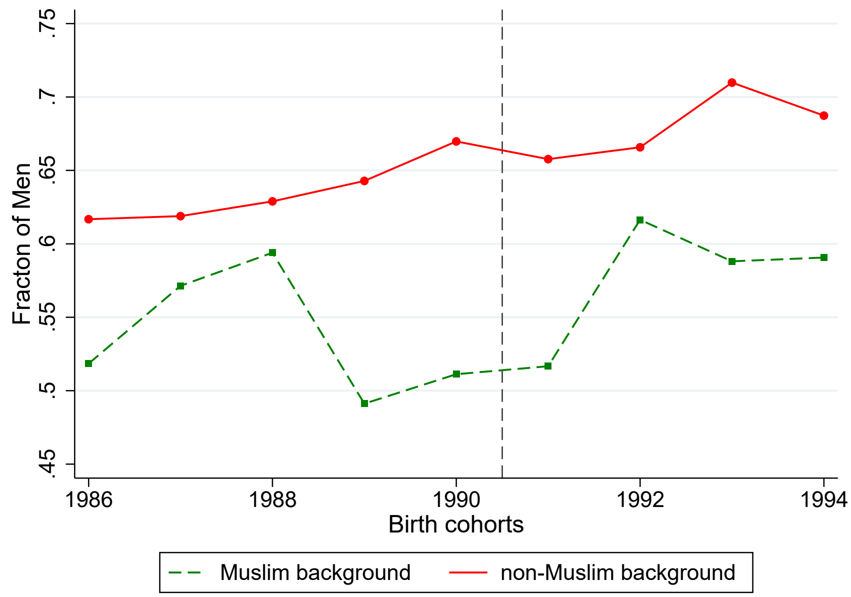
(B) Estimated differences between Muslim and non-Muslim.



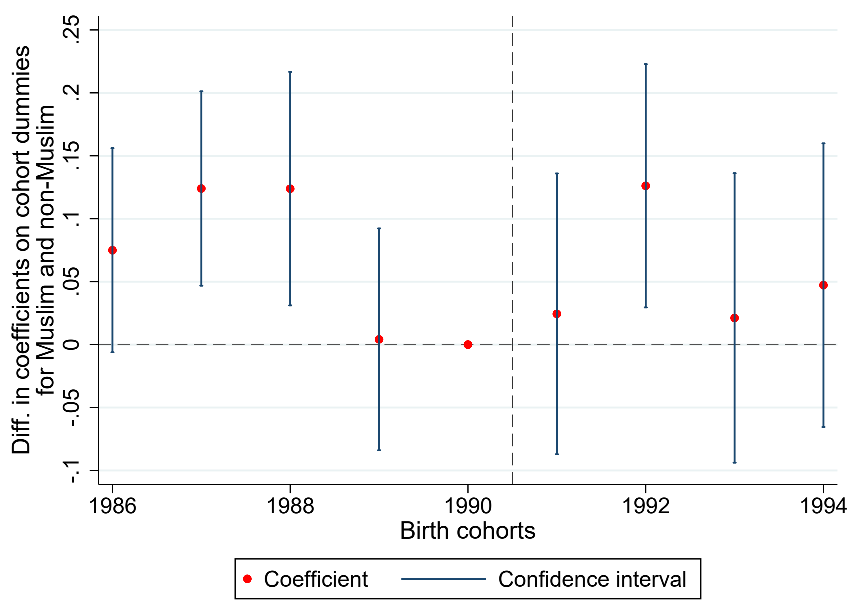
Notes: The top figure displays the fraction of French-born women, aged 21 or more, who graduated from high school, for cohorts born between 1986 and 1994. The solid (dashed) line refers to the Muslim (non-Muslim) group. The bottom figure displays the estimated difference in high school graduation probability between Muslim and non-Muslim groups obtained from regressing a high school graduation dummy on a full set of interactions between the Muslim dummy and cohort dummies, and controlling for department of birth and survey date fixed effects. Cohorts to the left of the vertical dashed line reached puberty before the issue of the 2004 law. Source: INSEE, LFS 2005-2017.

Figure 4: High school graduation rates for men reaching puberty around the 2004 law's issue

(A) High school graduation rate of Muslim and non-Muslim.



(B) Estimated differences between Muslim and non-Muslim.



Notes: The top figure displays the fraction of French-born men, aged 21 or more, who graduated from high school, for cohorts born between 1976 and 1984. The solid (dashed) line refers to the Muslim (non-Muslim) group. The bottom figure displays the estimated difference in high school graduation probability between Muslim and non-Muslim groups obtained from regressing a high school graduation dummy on a full set of interactions between the Muslim dummy and cohort dummies, and controlling for department of birth and survey date fixed effects. Cohorts to the left of the vertical dashed line reached puberty before the issue of the 1994 circular. Source: INSEE, LFS 2005-2017.

For Online Publication

Appendix A Circulaire 1649 du 20 septembre 1994.

Texte adressé aux recteurs, aux inspecteurs d'académie, directeurs des services départementaux de l'Education Nationale et aux chefs d'établissement.

Neutralité de l'enseignement public : port de signes ostentatoires dans les établissements scolaires.

Depuis plusieurs années, de nombreux incidents sont intervenus dans les établissements scolaires, à l'occasion de manifestations spectaculaires d'appartenance religieuse ou communautaire.

Les chefs d'établissements et les enseignants ont constamment manifesté leur souhait de recevoir des instructions claires.

Il m'a donc paru nécessaire de vous apporter les précisions suivantes.

En France, le projet national et le projet républicain sont confondus autour d'une certaine idée de la citoyenneté. Cette idée française de la nation et de la République est, par nature, respectueuse de toutes les convictions, en particulier des convictions religieuses, politiques et des traditions culturelles. Mais elle exclut l'éclatement de la nation en communautés séparées, indifférentes les unes aux autres, ne considérant que leurs propres règles et leurs propres lois, engagées dans une simple coexistence. La nation n'est pas seulement un ensemble de citoyens détenteurs de droits individuels. Elle est une communauté de destin.

Cet idéal se construit d'abord à l'école. L'école est, par excellence, le lieu d'éducation et d'intégration où tous les enfants et tous les jeunes se retrouvent, apprennent à vivre ensemble et à se respecter. La présence, dans cette école, de signe et de comportement qui montreraient qu'ils ne pourraient pas se conformer aux mêmes obligations, ni recevoir les mêmes cours et suivre les mêmes programmes, serait une négation de cette mission. À la porte de l'école doivent s'arrêter toutes les discriminations, qu'elles soient de sexe, de culture ou de religion.

Cet idéal laïque et national est la substance même de l'école de la République et le fondement du devoir d'éducation civique qui est le sien.

C'est pourquoi il n'est pas possible d'accepter à l'école la présence de signes si ostentatoire

que leur signification est précisément de séparer certains élèves des règles de vie commune de l'école. Ces signes sont, en eux-mêmes, des éléments de prosélytisme, à plus forte raison lorsqu'ils s'accompagnent de remise en cause de certains cours ou de certaines disciplines, qu'ils mettent en jeu la sécurité des élèves ou qu'ils entraînent des perturbation dans la vie en commun de l'établissement.

Je vous demande donc de bien vouloir proposer aux conseils d'administration, dans la rédaction des règlements intérieurs l'interdiction de ces signes ostentatoires, sachant que la présence de signes plus discrets, traduisant seulement l'attachement à une conviction personnelle, ne peut faire l'objet des mêmes réserves, comme l'ont rappelé le Conseil d'État et la jurisprudence administrative.

Je vous demande aussi de ne pas perdre de vue que notre devoir est d'abord l'éducation.

Aucune entreprise éducative n'est concevable sans énoncé préalable d'une règle claire. Mais l'adhésion à la règle est souvent le résultat d'un travail de persuasion.

Les recteurs et inspecteurs d'académie soutiendront donc tout les efforts qui seront les vôtres pour convaincre au lieu de contraindre, pour rechercher des médiations avec les familles, et pour prouver aux élèves qui seraient en cause que notre démarche est une démarche de respect. L'accès au savoir est le moyen privilégié de la construction d'une personnalité autonome. Notre mission est de continuer de l'offrir à tous et à toutes.

Je vous prie de ne pas omettre d'informer toutes les familles des règlements intérieurs adoptés par les conseils d'administration des établissements.

Je vous prie de demander aux enseignants de toutes disciplines aux personnels d'éducation et à l'ensemble de vos équipes, d'expliquer aux élèves dont ils ont la charge ce double mouvement de respect des convictions et de fermeté dans la défense du projet républicain de notre pays.

Responsables de vos établissements, en liaison avec les équipes pédagogiques, représentants du ministre, je vous confirme que vous avez toute ma confiance pour rechercher le meilleurs rythme et les meilleures conditions d'applications de ces principes.

Annexe : Proposition d'article à insérer dans le règlement intérieur des établissements.

"Le port par les élèves de signes discrets manifestant leur attachement personnel à des convictions, notamment religieuses, est admis dans l'établissement. Mais les signes ostentatoires, qui constituent en eux-mêmes des éléments de prosélytisme ou de discrimination,

sont interdits. Sont interdits aussi les attitudes provocatrice, les manquements aux obligations d'assiduité et de sécurité, les comportements susceptibles de constituer des pressions sur d'autres élèves, de perturber le déroulement des activités d'enseignement ou de troubler l'ordre dans l'établissement. "

Appendix B Conceptual framework

In this appendix, we develop a simple model to clarify how banning Islamic veils can affect female students' school trajectories and clarify why this effect on school trajectories may vary across birth cohort.

The model

We focus on female students from Muslim families, aged 13 to 18. They can either attend school and get involved in their studies while wearing an Islamic veil at school (EV), attend school and get involved in their studies without wearing an Islamic veil (E$\underline{\text{V}}$), or get disengaged from school ($\underline{\text{E}}$). For student i, we denote $U_{i,EV}$ as the utility that she derives from attending school wearing an Islamic veil, $U_{i,E\underline{V}}$ is the utility derived from attending school without wearing an Islamic veil, and $U_{i,\underline{E}}$ the utility derived from disengaging from school.

For student i, $\alpha_i = U_{i,\underline{E}} - U_{i,EV}$ captures the effect of social pressure at school. It is positive for students who prefer to disengage from school rather than being perceived by her classmates and teachers as adhering to Muslim values. On the other hand, the parameter $\beta_i = U_{i,\underline{E}} - U_{i,E\underline{V}}$ captures the strength of religious convictions: it is positive for students who prefer to disengage from school rather than to attend school without wearing an Islamic veil.

With these notations, after dropping subscript i, we define pro-veil students as students who satisfy $\beta > 0$ and $\alpha < 0$, that is $U_{EV} > U_{\underline{E}} > U_{E\underline{V}}$. They wish to attend school if and only if they can wear the veil at school. Similarly, we define anti-veil students as students who satisfy $\beta < 0$ and $\alpha > 0$, that is $U_{E\underline{V}} > U_{\underline{E}} > U_{EV}$. They wish to attend school if and only if they are not obliged to wear the veil. These two types of students are the only ones whose school engagement may be affected by the prohibition of Islamic veils. In contrast, adolescents who satisfy $min(U_{E\underline{V}}, U_{EV}) > U_{\underline{E}}$ always prefer to attend school, regardless of the regulation. Also, adolescents who satisfy $max(U_{E\underline{V}}, U_{EV}) < U_{\underline{E}}$ always prefer school disengagement, regardless of the regulation.

Following the evidence reported by Chérifi [1996] and the 2003 report to the President [Commission de réflexion sur l'application du principe de laïcité dans la république, 2003], we also consider that some students could live in a family and social environments that force them to wear veil wherever possible, even when they do not wish to. For student i, we denote F_i as a dummy variable indicating when a student lives in such a social and family

environments.

In this framework, the prohibition of Islamic veils at schools will have a negative effect on the school engagement of pro-veil students (regardless of the social environment in which they live), but a positive effect on the school engagement of anti-veil students living in pro-veil environment, i.e., on students satisfying $U_{E\underline{V}} > U_{\underline{E}} > U_{EV}$ and $F = 1$.

The impact of the prohibition

To be more specific, let us consider a cohort of students who are aged a when the ban on veils is issued. We assume that adolescence starts at age 13, and that pro-veil environments expect female students to start to wear the veil at age 13.

If $a \leq 13$, both pro-veil and anti-veil students reach adolescence after the ban is issued. This induces pro-veil to disengage from school very early (i.e., at age 13), but it has the opposite effect on anti-veil students living in a pro-veil environment. Specifically, the utility that students can derive from attending school during adolescence is $U_{E\underline{V}}$ which is smaller than $U_{\underline{E}}$ for pro-veil students, but larger than $U_{\underline{E}}$ for anti-veil students.

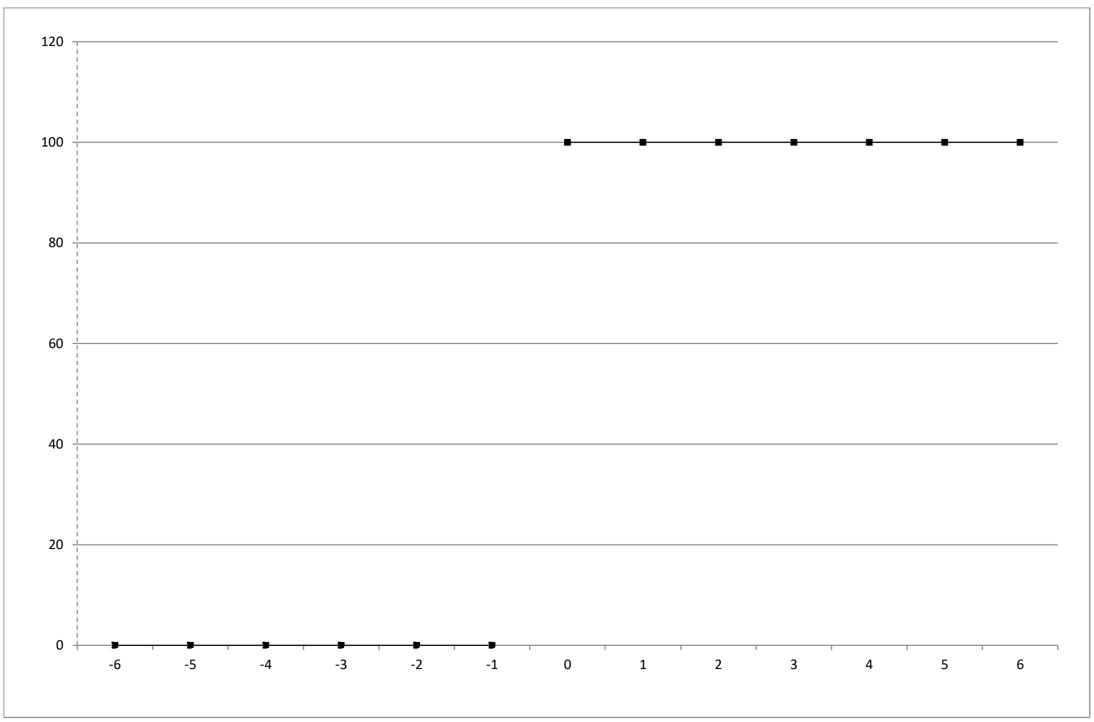
In contrast, if $a \geq 13$, both pro-veil and anti-veil students reach age 13 before the ban is issued. This induces anti-veil students living in a pro-veil environment to disengage from school early in adolescence, whereas pro-veil students can continue at least until age a. Specifically, at age 13, the utility that the two groups of students can derive from attending school is U_{EV} which is larger than $U_{\underline{E}}$ for pro-veil students, but smaller than $U_{\underline{E}}$ for anti-veil students in pro-veil environments.

It should be noted that pro-veil students may nonetheless start to disengage from school at age $a > 13$, when the veil starts to be prohibited. The higher a, the weaker the effect of the ban on pro-veil students. The effect becomes likely negligible when $a > 18$ since most individuals have left secondary education when the ban is issued.

Overall, assuming that the proportion of high school graduates among students is proportional to the age at which they first disengage from school, Figures B5 and B6 show the variation in this proportion across birth cohorts, separately for pro-veil students and anti-veil students in pro-veil environment. The origin of the cohort scale in Figures B5 and B6 corresponds to the cohort aged 13 when the ban is issued, i.e., born in $t_0 - 13$, where t_0 is the date of the ban.

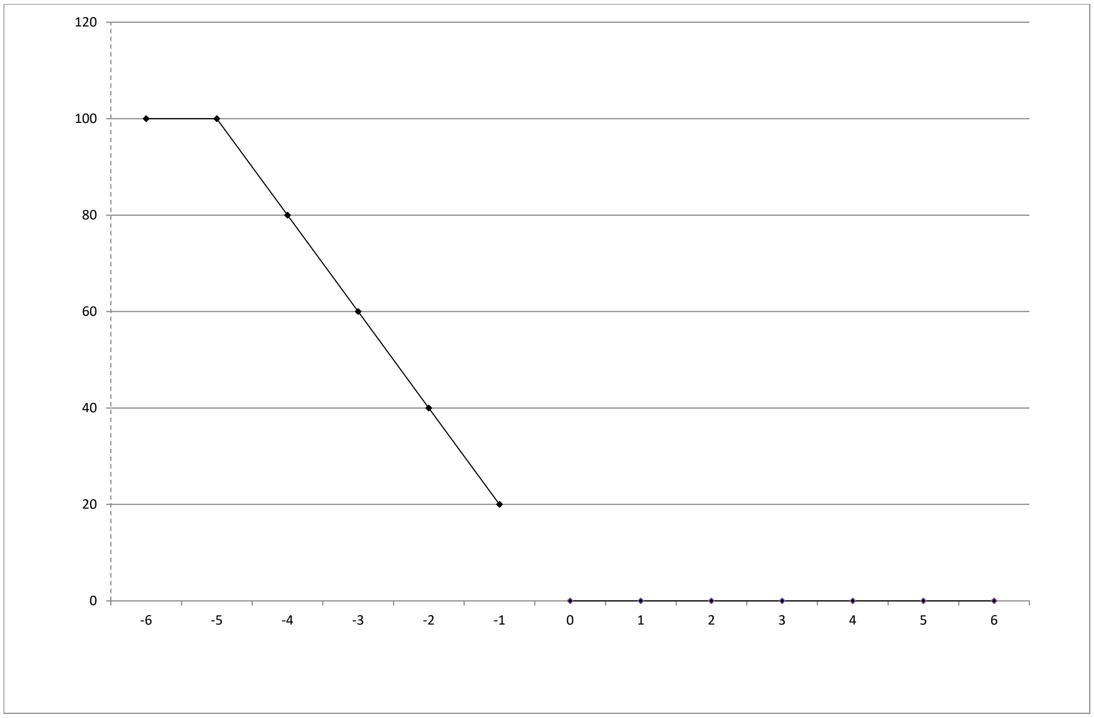
In this set-up, the variation in the average proportion of high-school graduates across cohorts depends on the relative weights of the pro-veil and anti-veil students. The magnitude of the upward shift in high school graduation observed just after cohort $t_0 - 13$ provides an evaluation of the proportion of anti-veil students living in pro-veil environment, whereas the magnitude of the decline in high school graduation for cohorts born between $t_0 - 18$ and $t_0 - 13$ provides an evaluation of the proportion of pro-veil students.

Figure B5: Variation in the proportion of high-school graduates across cohorts who reach puberty before and after the ban on Islamic veils is issued: the case of anti-veil female students living in pro-veil environment



Notes: This figure shows the variation across cohorts in the proportion of high school graduates among female students who satisfy F=1 and $U_{E\underline{V}} > U_{\underline{E}} > U_{EV}$. The ban is issued at t_0. The horizontal axis presents the distance of each cohort to the cohort born in $t_0 - 13$. The y-axis presents the fraction of high school graduates.

Figure B6: Variation in the proportion of high-school graduates across cohorts who reach puberty before and after the ban on Islamic veils is issued: the case of pro-veil female students



Notes: This figure sshows the variation across cohorts in the proportion of high school graduates among female students who satisfy $U_{EV} > U_{\underline{E}} > U_{E\underline{V}}$ (i.e., pro veil). The ban is issued at t_0. The horizontal axis presents the distance of each cohort to the cohort born in $t_0 - 13$. The y-axis presents the fraction of high school graduates.

Appendix C Descriptive statistics

Table C3: Characteristics of Muslin and non-Muslim, for cohorts born between 1976 and 1984

	Women		Men	
	Muslim (1)	non-Muslim (2)	Muslim (3)	non-Muslim (4)
Baccalauréat(any)	0.601	0.700	0.476	0.601
Born in Paris department	0.357	0.167	0.364	0.166
Maghreb father	0.768	0.000	0.801	0.000
African father	0.134	0.000	0.110	0.000
Middle-east father	0.098	0.000	0.090	0.000
French mother	0.201	0.975	0.189	0.974
Muslim mother	0.782	0.005	0.800	0.006
Observations	2781	37700	2541	36346

Notes: This table reports descriptive statistics for French-born individuals aged 21 or more and born between 1976 and 1984. Column (1) (resp. (2)) reports the mean of the different variables for women whose father's nationality at birth is from a predominantly Muslim (resp. non-Muslim) country. Column (3) (resp. (4)) reports the mean of the different variables for men whose father's nationality at birth is from a predominantly Muslim (resp. non-Muslim) country. Source: INSEE, LFS 2005-2017.

Table C4: Characteristics of Muslin and non-Muslim, for cohorts born between 1986 and 1994

	Women		Men	
	Muslim (1)	non-Muslim (2)	Muslim (3)	non-Muslim (4)
Baccalauréat(any)	0.653	0.719	0.544	0.638
Born in Paris department	0.420	0.187	0.408	0.185
Maghreb father	0.614	0.000	0.631	0.000
African father	0.231	0.000	0.231	0.000
Middle-east father	0.156	0.000	0.138	0.000
French mother	0.241	0.964	0.257	0.965
Muslim mother	0.754	0.011	0.734	0.009
Observations	1816	20439	1724	20553

Notes: This table reports descriptive statistics for French-born individuals aged 21 or more, born between 1986 and 1994. Column (1) (resp. (2)) reports the mean of the different variables for women whose father's nationality at birth is from a predominantly Muslim (resp. non-Muslim) country. Column (3) (resp. (4)) reports the mean of the different variables for men whose father's nationality at birth is from a predominantly Muslim (resp. non-Muslim) country and whose father's nationality at birth is from a predominantly non-Muslim country. Source: INSEE, LFS 2005-2017. 2005-2017.

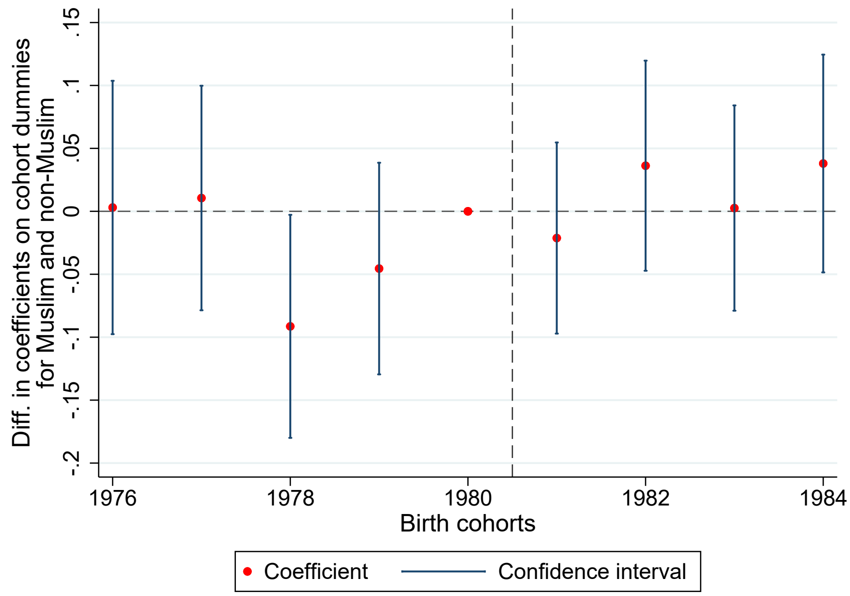
Appendix D Graphical analysis when dropping individuals with non-Maghreb African background from the Muslim group

Figure D7: Estimated difference in high-school graduation between Muslim and non-Muslim women reaching puberty around 1994



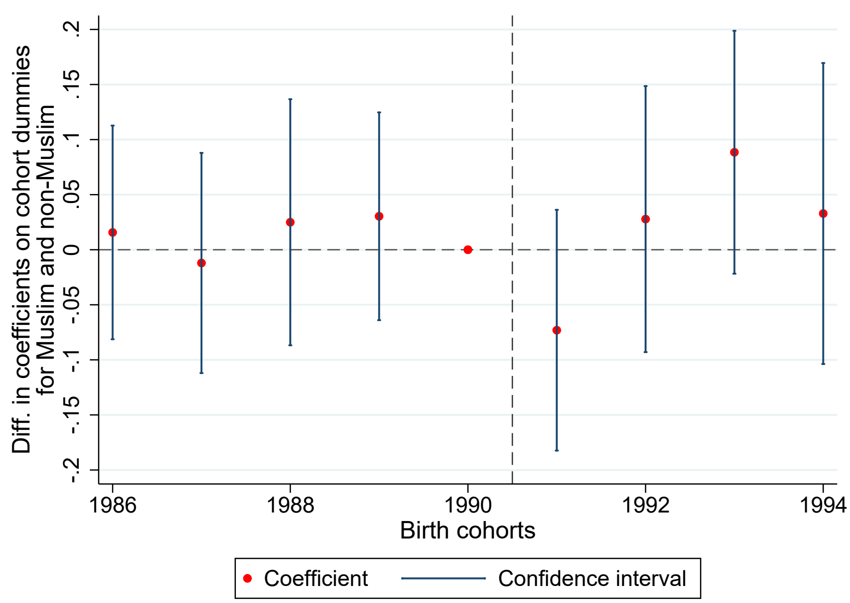
Notes: The Figure shows the replication of Figure 1B when individuals with a non-Maghreb African background are removed from the Muslim group.

Figure D8: Estimated difference in high-school graduation between Muslim and non Muslim men reaching puberty around 1994



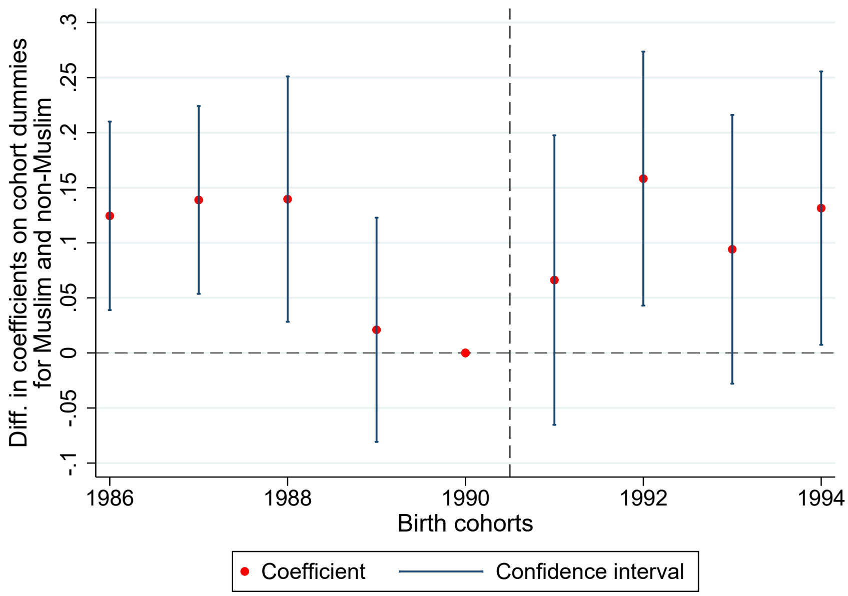
Notes: The Figure shows the replication of Figure 2B when individuals with a non-Maghreb African background are removed from the Muslim group.

Figure D9: Estimated difference in high-school graduation between Muslim and non-Muslim women reaching puberty around 2004



Notes: The Figure shows the replication of Figure 3B when individuals with a non-Maghreb African background are removed from the Muslim group.

Figure D10: Estimated difference in high-school graduation between Muslim and non-Muslim for men reaching puberty around 1994



Notes: The Figure shows the replication of Figure 4B when individuals with a non-Maghreb African background are removed from the Muslim group.